

## Section 44

### FLOOD HAZARD DISTRICT

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**44.010**            **Title, Intent and Compliance.**

**A.**     These regulations shall be known and cited as the Bozeman area floodplain regulations. This section is in accordance with exercising the authority of the laws of the state of Montana.

**B.**     To comply with the Montana Floodplain and Floodway Management Act (Chapter 5, Title 76, MCA) and to ensure compliance with the requirements for the continued participation in the National Flood Insurance Program.

**C.**     No structure or land use shall be located, extended, converted or structurally altered without full compliance with the provisions of the above stated regulations and all other applicable regulations.

**44.020**            **Jurisdictional area.**

All lands within this Zoning District shown on the official floodplain maps as being located within a one-hundred year floodplain district are subject to the following regulations.

**A.**     All lands shown on the Flood Insurance Rate Map (FIRM) for Gallatin County, Montana, as being located within a one-hundred year floodplain district shall be subject to the provisions of the Gallatin County Floodplain Regulations.

**B.**     All lands shown on the Flood Insurance Rate Map (FIRM) for the City of Bozeman, Montana, Gallatin County, as being located within a one-hundred year floodplain district shall be subject to the provisions of Section 44, Flood Hazard District and Chapter 18.44, Flood Hazard District, Bozeman Zoning Ordinance, Title 18 of the Bozeman Municipal Code.

**44.030**            **Purpose.**

To promote the public health, safety and general welfare, to minimize flood losses in areas subject to flood hazards, and to promote wise use of the floodplain. This section has been established with the following purposes intended:

**A.**     To guide development of the one hundred year floodplain within the Bozeman floodplain jurisdiction consistent with the enumerated findings by:

1. Recognizing the right and need of water courses to periodically carry more than the normal flow of water; and
2. Participating in coordinated efforts of federal, state, and local management activities for one hundred-year floodplains; and
3. Ensuring the regulations and minimum standards adopted, insofar as possible, balance the greatest public good with the least private injury.

**B.**     Specifically it is the purpose of this section to:

1. Restrict or prohibit uses that are dangerous to health, safety, and property in times of flood, or that cause increased flood heights and velocities; and
2. Require that uses vulnerable to floods, including public facilities, be provided with flood protection at the time of initial construction; and

3. Identify lands unsuitable for certain development purposes because of flood hazards; and
4. Minimize the need for rescue and relief efforts associated with flooding undertaken at the expense of the general public; and
5. Ensure potential buyers are notified that property is within a one hundred-year floodplain and subject to the provisions of these regulations; and
6. Ensure that those who occupy one hundred year floodplains assume responsibility for their actions.

#### **44.040 Definitions.**

Unless specifically defined below, words or phrases used in these regulations shall be interpreted to give them the meaning they have in common usage and to give these regulations the most reasonable application.

"Act" means the Montana Floodplain and Floodway Management Act, Sections 76-5-101 through 406, MCA.

"Alteration" means any change or addition to a structure that either increases its external dimensions or increases its potential flood hazard.

"Appeal" means a request for a review of the floodplain administrator's interpretation of any provisions of these regulations or a request for a variance.

"Area of special flood hazard" means the land in the floodplain within the community subject to inundation by a one percent or greater chance of flooding in any given year, i.e., the one hundred year floodplain.

"Artificial obstruction-Development" means any obstruction which is not natural and includes any darn, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, bridge, conduit, culvert, building, refuse, automobile body, fill, or other analogous structure or matter in, along, across or projecting into any one hundred-year floodplain which may impede, retard, or alter the pattern of flow of water, either in itself or by catching or collecting debris carried by the water, or that is placed where the natural flow of water would carry the same downstream to the damage or detriment of either life or property.

"Base flood" means a flood having a one percent chance of being equalled or exceeded in any given year. A base flood is the same as a one hundred year flood.

"Base flood elevation" means the elevation above sea level of the base flood in relation to National Geodetic Vertical Datum of 1929 unless otherwise specified in the flood hazard study.

"Channelization project" means the excavation and/or construction of an artificial channel for the purpose of diverting the entire flow of a stream from its established course.

"Establish" means to construct, place, insert, or excavate.

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision where the construction of facilities for servicing the manufactured homes lots is completed before the effective date of the floodplain management regulations. This includes, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

"FEMA" means the Federal Emergency Management Agency.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry lands from the overflow of a stream, or the unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Insurance Rate Map" means the map on which FEMA has delineated both the one hundred year floodplains and the risk premium zones.

"Flood insurance study" means the report in which FEMA has provided flood profiles, as well as the Flood Boundary/Floodway Map and the water surface profiles.

"Floodplain" means the areas subject to these regulations, generally adjoining a stream, that would be covered by floodwater of a base flood except for designated shallow flooding areas that receive less than one foot of water per occurrence. The floodplain consists of a floodway and floodway fringe.

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"Floodway" means the channel of a stream and the adjacent overbank areas that must be reserved in order to discharge a base flood without cumulatively increasing the water surface elevation more than one-half foot.

"Floodway fringe" means that portion of the floodplain outside the limits of the floodway.

"Levee" means a manmade embankment, usually earthen, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water to provide protection from temporary flooding.

"Levee System" means a flood protection system that consists of a levee, or levees, and associated structures, such as drainage and closure devices, which are constructed and operated in accordance with sound engineering practices.

"Lowest floor" means any floor used for living purposes, storage or recreation. This includes any floor that could be converted to such a use.

"Manufactured home" means a structure that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. This does not include recreational vehicles.

"Manufactured home park or subdivision" means a parcel or contiguous parcels of land divided into two or more manufactured home lots for rent or sale.

"Mean sea level" means the National Geodetic Vertical Datum (NGVD) of 1929 or other datum to which base flood elevations are references.

"New construction" means structures for which construction, substantial improvement, or alteration commences on or after the effective date of these regulations.

"Official floodplain maps" means the Flood Insurance Rate Maps and Flood Boundary/Floodway Maps provided by FEMA for the city dated July 15, 1988.

"One hundred-year flood" means a flood having a one percent chance of being equalled or exceeded in any given year. A one hundred-year flood has nearly a 23 percent chance of occurring in a twenty-five-year period. A one hundred year flood is the same as a base flood.

"Permit issuing authority" means the Bozeman commission.

"Recreational vehicle" means a vehicle which is (1) built on a single chassis; (2) four hundred square feet or less when measured at the largest horizontal projections; (3) designed to be self-propelled or permanently towable by a light duty truck; and (4) designed primarily for use as temporary living quarters for recreation, camping, travel, or seasonal use, not for use as a permanent dwelling.

"Riprap" means stone, rocks, concrete blocks or analogous material that is placed along the banks or bed of a stream to alleviate erosion.

"Start of construction" means the commencement of clearing, grading, filling or excavating to prepare a site for construction.

"Structure" means a walled and roofed building, manufactured home, a gas or liquid storage tank, bridge, culvert, dam, diversion, wall revetment, dike, or other projection may impede, retard or alter the pattern of flow of water.

"Substantial damage" means damage sustained by a structure where the cost of restoring the structure to its condition before damage would equal or exceed fifty percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty of the market value of the structure either:

1. Before the improvement or repair is started, or
2. If the structure has been damaged, and is being restored, before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first construction to any wall, ceiling, floor or other structural part of the building commences. The term does not include:
  - a. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or
  - b. Any alteration of a structure listed on the National Register of Historic Places or State Inventory of Historic Places.

"Suitable fill" means fill material which is stable, compacted, well-graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and is fitting for the purpose of supporting the intended use and/or permanent structure.

"Variance" means a grant of relief from the requirements of this section that would permit construction in a manner otherwise prohibited by this section.

"Violation" means the failure of a structure or other development to be fully compliant with this section. A structure or other development without elevation certificate, certification by a licensed engineer or architect of compliance with these regulations, or other evidence of compliance is presumed to be in violation until such time as documentation is provided.

#### **44.050 Floodplain district establishment.**

The floodplain districts established are defined by the base flood elevations and one hundred-year flood plains as delineated in the Flood Insurance Study. The basis for the Flood Insurance Study is a scientific and engineering report entitled The Flood Insurance Study for the City of Bozeman, Montana, dated July 15, 1988, with accompanying Flood

Insurance Rate Maps and Flood Boundary/Floodway Maps. The official floodplain maps, together with the Flood Insurance Study are on file in the office of the floodplain administration.

**44.060 Floodplain administrator.**

The city floodplain administrator has been designated to be the city engineer. The responsibilities of this position are outlined in Section 44.130.

**44.070 Rules for interpretation of floodplain district boundaries.**

The boundaries of the one hundred-year floodway shall be determined by scaling distances on the official floodplain maps and using the floodway data table contained in the flood insurance study report. The maps may be used as a guide for determining the one hundred-year floodplain boundary, but the exact location of the floodplain boundary shall be determined where the base flood elevation intersects the natural ground.

**44.080 Compliance with regulations.**

No structure or land use shall be located, extended, converted or structurally altered without full compliance with the provisions of these regulations and other applicable regulations. These regulations meet the minimum floodplain development requirements as set forth by the Montana Board of Natural Resources and Conservation and the National Flood Insurance Program.

**44.090 Abrogation and greater responsibility.**

It is not intended by this section to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, or underlying zoning. However, where this section imposes greater restrictions, the provisions of this section shall prevail.

**44.100 Regulation interpretation.**

The interpretation and application of the provisions of these regulations shall be considered minimum requirements and liberally construed in favor of the governing body and not deemed a limitation or repeal of any other powers granted by state statute.

**44.110 Warning and disclaimer of liability.**

This section does not imply that areas outside the delineated floodplain boundaries or permitted land uses will always be totally free from flooding or flood damages. These regulations shall not create a liability or cause of action against the city or any officer or employee thereof for flood damages that may result from reliance upon these regulations.

**44.120 Disclosure provision.**

All owners of property in an identified one hundred-year floodplain as indicated on the official floodplain maps must notify potential buyers or their agents that such property is subject to the provisions of this section.

**44.130 Administration of regulations.**

A. As provided in Section 44.060, the floodplain administrator has been designated by the commission, and has the responsibility of such position as outlined in this section.

**B.** The floodplain administrator is appointed with the authority to review floodplain development permit applications, proposed uses, and construction to determine compliance with these regulations. The floodplain administrator is required to assure all necessary permits have been received from those governmental agencies from which approval is required by federal and state law and local codes, including Section 404 of the Federal Water Pollution Control Act of 1972, 33 U.S.C. 1334, and under the provisions of the Natural Streambed and Land Preservation Act.

1. Additional Factors. Floodplain development permits shall be granted or denied by the floodplain administrator on the basis of whether the proposed establishment, alteration or substantial improvement of an artificial obstruction meets the requirements of this section. Additional factors that shall be considered for every permit application are:

- a. The danger to life and property due to increased flood heights, increased flood water velocities, or alterations in the pattern of flood flow caused by encroachments;
- b. The danger that materials may be swept onto other lands or downstream to the injury of others;
- c. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions;
- d. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner;
- e. The importance of the services provided by the facility to the community;
- f. The requirement of the facility for a waterfront location;
- g. The availability of alternative locations not subject to flooding for the proposed use;
- h. The compatibility of the proposed use with existing development and anticipated development in the foreseeable future;
- i. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;
- j. The safety of access to property in times of flooding or for ordinary and emergency services; and
- k. Such other factors as are in harmony with the purposes of these regulations, the Montana Floodplain and Floodway Management Act, and the National Flood Insurance Program.

**C.** A floodplain development permit application is considered to have been automatically granted sixty days after the date of receipt of the application by the floodplain administrator unless the applicant has been notified that the permit is denied, conditionally approved, or additional information pertinent to the permit review process is required.

**D.** The floodplain administrator shall adopt such administrative procedures as may be necessary to efficiently administer the provision of these regulations.

**E.** The floodplain administrator shall maintain such files and records as may be necessary to document nonconforming uses, base flood elevations, floodproofing and elevation certifications, fee receipts, the issuance of permits, agenda, minutes, records of public meetings, and any other matters related to floodplain management in the Bozeman

floodplain jurisdictional area. Such files and records shall be open for public inspection. In matters of litigation, the city attorney may restrict access to specific records.

**F.** The floodplain administrator may require whatever additional information is necessary to determine whether the proposed activity meets the requirements of these regulations. Additional information may include hydraulic calculations assessing the impact on base flood elevations or velocities; level survey; or certification by a registered land surveyor, professional engineer or licensed architect that the requirements of these regulations are satisfied.

**G.** Upon receipt of an application for a permit or a variance, the floodplain administrator shall prepare a notice containing the facts pertinent to the application and shall publish the notice at least once in a newspaper of general circulation in the area. Notice shall also be served by first-class mail upon adjacent property owners and the Department of Natural Resources and Conservation (DNRC) Floodplain Management Section. The notice shall provide a reasonable period of time, not less than fifteen days, for interested parties to submit comments on the proposed activity.

**H.** Copies of all permits granted must be sent to the Department of Natural Resources and Conservation in Helena, Montana.

1. In riverine situations, notifications by the floodplain administrator must be made to adjacent communities, the Floodplain Management Section (DNRC), and FEMA prior to any alteration or relocation of a stream. The flood-carrying capacity within the altered or relocated portion of any stream must be maintained. Erosion control measures shall be incorporated to ensure stability of altered channels and stream banks.

#### **44.140 Permit applications.**

**A.** Activities or uses that require the issuance of a permit, including the expansion or alteration of such uses, shall not be initiated, established or undertaken until a permit has been issued by the floodplain administrator.

**B.** Permit applicants shall be required to furnish the following information as deemed necessary by the floodplain administrator for determining the suitability of the particular site for the proposed use:

1. Plans in duplicate drawn to scale (including dimensions) showing the nature, location and elevation of the lot; existing and proposed structure locations; fill, storage, or materials site; floodproofing measures; mean sea level elevation of first floor of proposed structures; and location of the channel and limits of one hundred-year floodplain boundary;
2. A plan view of the proposed development indicating external dimensions of structures, street or road finished grade elevations, well locations, individual sewage treatment and disposal sites, excavation and/or fill quantity estimates, and site plan and/or construction plans;
3. Specifications for floodproofing, filling, excavating, grading, riprapping, storage or materials and location of utilities;
4. A professional engineer's or registered architect's design calculations and certification that the proposed activity has been designed to be in compliance with these regulations;



5. Certification of floodproofing and/or elevation shall be provided on a standard form available from the floodplain administrator.

C. To determine that the permit specifications and conditions have been completed, applicants who have received permits are required to furnish the following at the time of an on-site conformance inspection:

1. Certification by a registered professional engineer or licensed land surveyor of the actual mean sea level elevation of the lowest floor (including basement) of all new, altered or substantially improved buildings;
2. If floodproofing techniques were used for buildings, the mean sea level elevation to which the floodproofing was accomplished must be certified by a structural engineer or licensed architect in the same manner,
3. Certification shall also be required. for artificial obstructions other than-buildings, that the activity was accomplished in accordance with these regulations and the design plans submitted with the application for the permit activity. This certification may be waived by the floodplain administrator if it can be clearly ascertained by a site inspection that the activity was accomplished in accordance with these regulations.
4. Certification of floodproofing and/or elevation shall be provided on a standard form available from the floodplain administrator.

**44.150            Emergency waiver.**

**A.** Emergency repair and replacement of severely damaged public transportation facilities, public water and sewer facilities, and flood control works may be authorized. Floodplain development permit requirements may be waived if:

1. Upon notification and prior to emergency repair and/or replacement, the floodplain administrator determines that an emergency condition exists warranting immediate action; and
2. The floodplain administrator agrees upon the nature and type of proposed emergency repair and/or replacement.

**B.** Authorization to undertake emergency repair and replacement work may be given verbally if the floodplain administrator feels that such a written authorization would unduly delay the emergency works. Such verbal authorization must be followed by a written authorization describing the emergency condition, and the type of emergency work agreed upon, and stating that a verbal authorization had been previously given.

**44.160            Review-Variances-Appeals.**

**A.** There is created a local floodplain management board of adjustment, the membership, administration. and rules of procedure of which are identical to a zoning board of adjustment.

**B.** The board of adjustment may, by variance, grant a permit that is not in compliance with the minimum standards contained in these regulations according, to the following procedures:

1. Variances shall not be issued for areas within a floodway if any additional increase in flood elevations or velocities after allowable encroachments into the floodway fringe would result;
2. Variances shall only be issued upon:
  - a. A showing of good and sufficient cause,
  - b. A determination that refusal of a permit due to exceptional circumstances would cause a unique or undue hardship on the applicant or community involved,
  - c. A determination that the granting of a variance will not result in increased flood hazards, present additional threats to public safety, be an extraordinary public expense, create nuisances, cause fraud, victimize the public, or conflict with existing state and local laws,
  - d. A determination that the proposed use would be adequately floodproofed,
  - e. A determination that a reasonable alternate location outside the floodplain is not available,
  - f. A determination that the variance requested is the minimum necessary to afford relief, considering the flood hazard, and
  - g. Approval of the Montana Department of Natural Resources and Conservation, upon request from the permit issuing authority, prior to formally approving any permit application that is in variance to these regulations;
3. Variances shall be issued in writing from the permit issuing authority and shall notify the applicant that:
  - a. A specific variance is granted, and certain conditions may be attached;

- b. The issuance of a variance to construct a building below the one hundred-year floodplain elevation will result in increased premium rates; and
  - c. Such construction below the one hundred year flood elevation increase risks to life and property. The floodplain administrator shall maintain records of the variance notification and actions, including justification for their issuance, and forward copies of all variance actions to the Montana Department of Natural Resources and Conservation and the Federal Emergency Management Agency.
- C. Appeal of any decision of the permit issuing authority, its officers, or agencies may be taken by an aggrieved person or persons, jointly or separately, to a court of record.

**44.170 Fees.**

Fees shall be established by resolution of the commission and shall be submitted with each permit application.

**44.180 Floodplain development - Compliance.**

Any use, arrangement, or construction not in compliance as authorized by permit, shall be deemed a violation of this section and punishable as provided in Section 44.420. An applicant is required to submit certification by a registered professional engineer, architect, land surveyor, or other qualified person designated by the floodplain administrator that finished fill and lowest building floor elevations, flood proofing, hydraulic design, or other flood protection measures were accomplished in compliance with these regulations.

**44.190 Emergency preparedness - planning.**

In formulating community development goals, the community shall consider the development of a plan for evacuating residents of all manufactured home parks or subdivisions located within flood prone areas. This plan should be developed, filed with, and approved by appropriate community emergency management authorities.

**44.200 Applications-Specific standards.**

The minimum floodplain development standards listed in this section apply to the floodway and floodway fringe portions of the one hundred-year floodplain as delineated on the flood hazard area maps.

**44.210 Floodway-Uses allowed without permits.**

The following open space uses shall be allowed without a permit within the floodway, provided that such uses conform to the provisions of Sections 44.360 through 44.400; are not prohibited by any other regulation, resolution or statute; and do not require filled, excavation, permanent storage of materials, or equipment or structures other than portable structures:

- A. Agricultural uses;
- B. Accessory uses such as loading and parking areas, or emergency landing strips associated with industrial and commercial facilities;
- C. Private and public recreational uses such as golf courses, driving ranges, archery ranges, picnic grounds, boat-launching ramps, parks, wildlife management and natural

areas, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking or horseback riding trails;

**D.** Forestry, including processing of forest products with portable equipment;

**E.** Residential uses such as lawns, gardens, parking areas and play areas;

**F.** Irrigation and livestock supply wells, provided that they are located at least five hundred feet from domestic water supply wells;

**G.** Fences, except permanent fences crossing channels; and

**H.** Recreational vehicles provided that they be on the site for fewer than one hundred eighty consecutive days, or be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system with wheels intact, is attached to the site only by quick disconnect type utilities and security devices, and has not permanently attached additions.

#### **44.220 Floodway-Uses requiring permits.**

The following artificial obstructions may be permitted in the floodway subject to the issuance of a permit by the floodplain administrator:

**A.** Excavation of material from pits and pools provided that:

1. A buffer strip of undisturbed land is left between the edge of the channel and the edge of the excavation. This buffer strip must be of sufficient width to prevent flood flows from channeling into the excavation;
2. The excavation meets all applicable laws and regulations of other local and state agencies; and
3. Excavated material is disposed of or stockpiled outside the floodway;

**B.** Railroad, highway and street stream crossings provided the crossings are designed to offer minimal obstruction to flood flow. Stream crossings shall not increase the elevation of the one hundred-year flood more than one-half foot nor cause a significant increase in flood velocities;

**C.** Limited filling for highway, street and railroad embankments not associated with stream crossings, provided that:

1. Reasonable alternate transportation routes outside the designated floodway are not available, and
2. Such floodway encroachment is located as far from the stream channel as possible and shall not result in a cumulative increase in base flood elevations, after allowable encroachments into the floodway fringe, exceeding one-half foot;

**D.** During or suspended utility transmission lines, provided that:

1. Suspended utility transmission lines are designed so the lowest point of the suspended line is at least six feet higher than the base flood elevation;
2. Towers and other appurtenant structures are designed and placed to withstand and minimally obstruct flood flows; and
3. Utility transmission lines carrying toxic or flammable materials are buried to a depth of at least twice the calculated maximum depth of scour for a one hundred-year flood. The maximum depth of scour shall be determined by hydraulic engineering methods acceptable to the floodplain administrator;

**E.** Storage of materials and equipment, provided that:

1. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent floatation or downstream movement, or

2. The material or equipment is readily movable within the limited time available after flood warning. Storage of flammable, toxic, hazardous or explosive materials shall not be permitted;

**F. Domestic water supply wells, provided that:**

1. They are driven or drilled wells located on ground higher than the surrounding - round to assure positive drainage from the well,
2. Well casings are watertight to a distance of at least twenty-five feet below the ground surface,
3. Water supply and electrical lines have a watertight seal where the lines enter the casing,
4. All pumps, electrical lines and equipment are either submersible or adequately floodproofed, and
5. Check valves are installed on main water lines at wells and at all building entry locations;

**G. Buried and sealed vaults for sewage disposal in recreational areas, provided they meet applicable laws and standards administered by the Montana Department of Health and Environmental Sciences;**

**H. Public or private campgrounds, provided that:**

1. Access roads require only limited fill and do not obstruct or divert flood waters, and recreational vehicles and travel trailers are licensed and ready for highway use. They are ready for highway use if on wheels or jacking system with wheels intact, are attached to the site with only quick disconnect type utilities and securing devices, and have no permanently attached additions;

**I. Structures accessory to the uses permitted in this section such as boat docks, marinas, sheds, picnic shelters, tables and toilets provided that:**

1. The structures are not intended for human habitation,
2. The structures will have a low flood damage potential,
3. The structures will, insofar as possible, be located on ground higher than the surrounding ground and as far from the channel as possible,
4. The floodproofing standards of Sections 44.360 through 44.400 are met, and
5. The structures will be constructed and placed so as to offer minimal obstruction to flood flows and are anchored to prevent flotation;

**J. Replacement of manufactured homes in an existing manufactured home park or subdivision on a developed site with servicing utilities. The replacement home must be elevated on a permanent foundation so the lowest floor is two feet above the base flood elevation or thirty-six inches in height above grade. The foundation must be reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength. The manufactured home chassis must be securely anchored to the foundation system so that it will resist floatation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors;**

**K. Substantial improvements to any structure provided that the provisions of subsections C, D or E of Section 44.270 are met. In the floodway the structure must be floodproofed or elevated on a permanent foundation rather than on fill;**

**L. All other artificial obstructions, substantial improvements or nonconforming uses not specifically listed or prohibited by these regulations.**

**44.230 Floodway-Permits for flood control works.**

Flood control works shall be allowed within floodways subject to the issuance of a permit by the floodplain administrator with the following conditions:

**A. Levees and floodwalls are permitted if:**

1. The proposed levee or floodwall is designed and construed to safely convey a one hundred-year flood, and
2. The cumulative effect of the levee or floodwall combined with allowable floodway fringe encroachments does not increase the unobstructed base flood elevation more than 0.5 foot. The floodplain administrator may establish either a lower or higher permissible increase in the base flood elevation for individual levee projects only with concurrence from the Montana Department of Natural Resources and Conservation and the Federal Emergency Management Agency based upon consideration of the following criteria:
  - a. The estimated cumulative effect of any anticipated future permissible uses, and
  - b. The type and amount of existing flood-prone development in the affected area.
3. The proposed levee or floodwall, except those to protect agricultural land, is constructed at least three feet higher than the base flood elevation;

**B. Riprap, except that which is handplaced, if:**

1. The riprap is designed to withstand a one hundred-year flood,
2. The riprap does not increase the base flood elevation, and
3. The riprap will not increase erosion upstream, downstream, or adjacent to the riprap site;

**C. Channelization projects if they do not significantly increase the magnitude, velocity, or base flood elevation in the proximity of the project;****D. Dams, provided that:**

1. They are designed and constructed in accordance with the Montana Dam Safety Act and applicable safety standards, and
2. They will not increase flood hazards downstream, either through operational procedures or improper hydraulic design.

**44.240 Floodway-Permits for water diversions.**

Permits for the establishment of a water diversion or change in place of diversion shall not be issued if, in the judgment of the floodplain administrator:

**A. The proposed diversion will significantly increase the upstream base flood elevation to the detriment of neighboring property;****B. The proposed diversion is not designed and constructed to minimize potential erosion from a one hundred-year flood; and****C. Any permanent diversion structure crossing the full width of the stream channel is not designed and constructed to safely withstand a one hundred year flood.****44.250 Floodway-Prohibited uses.**

The following artificial obstructions and nonconforming uses are prohibited within the floodway:

**A. New construction of any residential, commercial or industrial structure including manufactured homes;**

- B.** Encroachments including fill, new construction, alterations, substantial improvements, and other development within the adopted regulatory floodway that would result in erosion of the embankment, obstruction of the natural flow of waters, or increase in flood levels within the community during the occurrence of the one hundred-year flood;
- C.** The construction or permanent storage of an object subject to floatation or movement during flooding;
- D.** Solid and hazardous waste disposal, sewage treatment and sewage disposal systems;
- E.** Storage of toxic, flammable, hazardous or explosive materials; and
- F.** Alterations of structures unless it can be shown the alteration will not raise flood heights.

**44.260 Floodway fringe-Uses allowed without permits.**

All uses allowed in the floodway, according to the provisions of Section 44.210 of these regulations. shall also be allowed without a permit in the floodway fringe. In addition, individual or multiple family subsurface sewage disposal systems are allowed only when they are reviewed and approved under laws and regulations administered by the Department of Health and Environmental Sciences or the local health board.

**44.270 Floodway fringe-Uses requiring permits.**

All uses allowed in the floodway subject to the issuance of a permit, according to the provisions of Sections 44.220 through 44.240, shall also be allowed by permit within the floodway fringe. In addition. new construction, substantial improvements, and alterations to structures are allowed by permit. This includes but is not limited to residential, commercial and industrial construction and suitable fill to be allowed by permit from the floodplain administrator, subject to the following conditions:

- A.** Such structures or fill must not be prohibited by any other statute, regulation, ordinance or resolution;
- B.** Such structures or fill must be compatible with local comprehensive plans;
- C.** The new construction, alterations, and substantial improvements of residential structures including manufactured homes must be constructed on suitable fill such that the lowest floor elevation (including basement) is two feet or more above the base flood elevation. The suitable fill shall be at an elevation no lower than the base flood elevation and shall extend for at least fifteen feet, at that elevation, beyond the structure(s) in all directions;
- D.** The new construction, alteration, and substantial improvement of commercial and industrial structures can be constructed on suitable fill as specified in subsection C of this section. If not constricted on fill, commercial and industrial structures must be adequately floodproofed to an elevation no lower than two feet above the base flood elevation. Floodproofing must be certified by a registered professional engineer or architect that the floodproofing methods are adequate to withstand the flood depths, hydrodynamic and hydrostatic pressures, velocities, impact, buoyancy, and uplift forces associated with the one hundred-year flood.
  - 1. If the structure is designed to allow internal flooding of areas below the lowest floor, use of this space shall be limited to parking, loading areas, building access, and storage of equipment or materials not appreciably affected by flood waters.

The floors and wall shall be designed and constructed of materials resistant to flooding to an elevation no lower than two feet above the base flood elevation. Walls shall be designed to automatically equalize hydrostatic forces by allowing for entry and exit of floodwaters. Openings may be equipped with screens, louvers, valves, other coverings, or devices which permit the automatic entry and exit of floodwaters.

2. Structures whose lowest floors are used for a purpose other than parking, loading, or storage of materials resistant to flooding shall be floodproofed to an elevation no lower than two feet above the base flood elevation. Floodproofing shall include impermeable membranes or materials for floors and walls and watertight enclosures for all windows, doors and other openings. These structures shall also be designed to withstand the hydrostatic, hydrodynamic and buoyancy effects of a one hundred-year flood.
3. Floodproofing of electrical, heating and plumbing systems shall be accomplished in accordance with Sections 44.360 through 44.400;

**E.** All manufactured homes placed in the floodway fringe must have the chassis securely anchored to a foundation system that will resist floatation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, over-the-top or fringe ties to ground anchors. The following conditions also apply:

1. When a manufactured home is a) altered, b) replaced because of substantial damage as a result of a flood, or c) replaced on an individual site, the lowest floor must be elevated two feet above the base flood elevation. The home can be elevated on fill or raised on a permanent foundation of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.
2. Replacement or substantial improvement of manufactured homes in an existing manufactured home park or subdivision must be raised on a permanent foundation. The lowest floor must be at least thirty-six inches above the ground or raised two feet above the base flood elevation, whichever is less. The foundation must consist of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.
3. Manufactured homes proposed for use as commercial or industrial structures must be elevated and anchored, rather than floodproofed;

**F.** Fill material placed in the floodway fringe must be stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and appropriate for the purpose of supporting the intended use and/or permanent structure;

**G.** Roads, streets, highways and rail lines shall be designed to minimize increase in flood heights. Where failure or interruption of transportation facilities would result in danger to the public health or safety, the facility shall be located two feet above the base flood elevation;

**H.** Agricultural structures that have a low damage potential, such as sheds, barns, shelters, and hay or grain storage structures must be adequate anchored to prevent floatation or collapse and all electrical facilities shall be placed above the base flood elevation; and



1. Recreational vehicles, if they are on the site for more than one hundred eighty consecutive days or are not ready for highway use, must meet the elevating requirements of subsection C of this section.

**44.280 Floodway fringe-Prohibited uses.**

The following artificial obstructions and nonconforming uses are prohibited within the floodway fringe:

1. Solid and hazardous waste disposal; and
2. Storage of highly toxic, flammable, hazardous or explosive materials. Storage of petroleum products may be allowed by permit if stored on compacted fill at least two feet above the base flood elevation and anchored to a permanent foundation to prevent downstream movement.

**44.290 Floodplain areas with flood elevations and no delineated floodway.**

**A.** A development proposed for a one hundred year floodplain, where water surface elevations are available but no floodway is delineated. may not significantly increase flood velocities or depths or generally alter patterns of flood flow. The provisions of Sections 44.260 through 44.280 shall apply to these areas. The floodplain administrator may require a permit applicant to furnish additional hydraulic data before acting on a permit application for such a floodplain. The data may include, but are not limited to, any of the following:

1. A hydraulic study documenting probable effect on upstream, downstream or adjacent property owners caused by the proposed development; or
2. The calculated increase in the one hundred year flood water surface profile caused by the proposed development.

**B.** Permits for such proposed development may be modified or denied if the additional information shows that the proposed use would cause an additional flood hazard to adjacent property or significantly increase in flood heights is one-half foot unless existing or anticipated development in the area dictates a lesser amount of allowable increase.

**44.300 Shallow flooding (AO zones).**

**A.** Shallow flooding areas are delineated as AO zone floodplains of the Flood Insurance Rate Maps. The provisions of Section 44.270 shall apply to any AO zone floodplains. The depth of the one hundred-year flood is indicated as the depth number on the Flood Insurance Rate Maps. The one hundred-year flood depth shall be referenced to the highest adjacent grade or stream flow line in determining which fill or floodproofing heights to use in applying the provisions of subsections C and D of Section 44.270. In the absence of depth or elevation information, a minimum two-foot flood depth shall be used.

**B.** Floodplain Boundary Interpretation. The floodplain administrator shall make interpretations where needed as to the exact location of an AO zone floodplain boundary when there is a conflict between a mapped boundary and actual field conditions.

**44.310 Applicability to unnumbered A zones.**

The minimum floodplain development standards listed in this section apply to the one hundred-year floodplains delineated by approximate methods and identified as unnumbered A zones on the Flood Insurance Rate Maps.

**44.320            A zones-Uses allowed without permits.**

All uses allowed in a floodway, according to the provisions of Section 44.210, shall also be allowed without a permit in unnumbered A zone floodplains.

**44.330            A zones-Uses requiring permits.**

All uses allowed in the floodway and floodway fringe subject to the issuance of a permit according to the provisions of Section 44.270, shall require permits from the floodplain administrator for unnumbered A zone floodplains. Also, the provisions of Section 44.270 apply to the A zone floodplains with no floodway delineated or water surface profile computed. Since there are no one hundred-year flood water surface profiles computed for A zone floodplains, the following conditions also apply:

1. Elevation data on the one hundred-year flood shall be provided for subdivision proposals according to the definitions and rules of the Montana Sanitation in Subdivisions Act, MCA 76-4 Part 1 and the rules adopted by DHES under this act. These data shall be used in the applying subsections C, D and E of Section 44.270. Subdivision proposals shall also provide for adequate drainage to minimize potential flood hazards;
2. The floodplain administrator may obtain, review and reasonably use any base flood elevation and floodway data available from federal, state or other sources, until such data have been provided by FEMA, to enforce subsections C and D of Section 44.270;
3. The floodplain administrator may use historical flood elevations to determine suitable fill or floodproofing elevations as required by subsections C and D of Section 44.270;
4. If historical flood evidence is not available, then the floodplain administrator shall determine, from a field review at the proposed development site, an appropriate fill or floodproofing elevation to use in applying subsections C and D of Section 44.270. In the absence of depth or elevation information, a minimum two-foot flood depth shall be used; and
5. Proposed structures must be anchored to prevent floatation or collapse and must be located as far from stream channels as practicable.

**44.340            A zones - Prohibited uses.**

Those uses prohibited in the floodway fringe, in accordance with Section 44.280, shall also be prohibited within the A zone floodplain boundaries.

**44.350            A zones-Floodplain boundary interpretation.**

The floodplain administrator shall make interpretations where needed as to the exact location of the unnumbered A zone floodplain boundary when there is a conflict between a mapped boundary and actual field conditions.

**44.360            Floodproofing requirements - Certification.**

If the following floodproofing requirements are to be applied to a proposed structure, as stipulated by the floodplain administrator in accordance with these regulations, the methods used must be certified as adequate by a registered professional engineer or architect.

**44.370 Floodproofing requirements - Conformance.**

Permitted floodproof systems shall conform to the conditions listed in Sections 44.380 through 44.400 and the floodproofing standards listed in subsection D of Section 44.270 for commercial and industrial structures.

**44.380 Floodproofing requirements - Electrical systems.**

**A.** All incoming power service equipment, including all metering equipment, control centers, transformers, distribution and lighting panels, and all other stationary equipment must be located at least two feet above the base flood elevation;

**B.** Portable or movable electrical equipment may be placed below the base flood elevation, if the equipment can be disconnected by a single submersible plug-and-socket assembly;

**C.** The main power service line shall have automatic or manually operated electrical disconnect equipment located at an accessible location outside the one hundred-year floodplain and above the base flood elevation; and

**D.** All electrical wiring systems installed at or below the elevation of the one hundred-year flood shall be suitable for continuous submergence and may not contain fibrous components.

**44.390 Floodproofing requirements - Heating systems.**

**A.** Float operated automatic control valves must be installed in gas furnace supply lines so that the fuel supply is automatically shut off when flood waters reach the floor level where the furnace is located;

**B.** Manually operated gate valves must be installed in gas supply lines. The gate valves must be operable from a location above the elevation of the one hundred-year flood;

**C.** Electric heating systems must be installed in accordance with the provisions of Section 30(A).

**44.400 Floodproofing requirements - Plumbing systems.**

**A.** Sewer lines, except those to be buried and sealed in vaults, must have check valves installed to prevent sewage backup into permitted structures; and

**B.** All toilet stools, sinks, urinals and drains must be located so the lowest point of possible water entry is at least two feet above the elevation of the one hundred-year flood.

**44.410 Violation notice.**

The floodplain administrator shall bring any violation of this section to the attention of the local governing body; its legal council; and the Montana Department of Natural Resources and Conservation.

**44.420 Violation-Penalty.**

Violation of the provisions of this section or failure to comply with any of the requirements, including permit approval prior to development of floodprone lands and conditions and safeguards established shall constitute a misdemeanor. Any person who violates this section or fails to comply with any of its requirements shall, upon conviction, be fined not more than one hundred dollars or imprisoned in jail for not more than ten days or both. Each day's continuance of a violation shall be deemed a separate and distinct offense.